

26. (New) A method according to Claim 25, wherein component (B) is a glycerol mono- or di-ester of a carboxylic acid having 8 to 30 carbon atoms.

## **REMARKS**

### ***Claim Rejections - 35 USC § 112***

The Examiner has rejected Claims 2 and 5 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The Examiner states that Claim 2 appears to be broader than Claim 1 from which it depends. The Examiner states that Claim 1 required the number of carbon atoms in the R group of the siloxane to be at least 1.3, however claim 2 allows for the siloxane to be solely a polydimethylsiloxane. The Examiner also states that Claim 5 appears to be broader than Claim 1 from which it depends. The Examiner states that the “substantially fully esterified” limitation is broader than the degree of esterification set forth in Claim 1.

Claim 2 has been amended to recite that that the mean number of carbon atoms in the groups R is at least 1.3. Claim 5 has been amended to recite a foam control composition according to Claim 1, characterized in that the non-polar polyol ester (A) is a polyol esterified by carboxylate groups each having 14 to 22 carbon atoms. Through the present amendment, the applicants believe that they have particularly pointed out and distinctly claimed the subject matter that they regard as their invention. Therefore, the applicants request that the rejection under 35 U.S.C. §112, second paragraph, be withdrawn and the claims allowed to issue.

### ***Claim Rejections - 35 USC § 102***

The Examiner has rejected Claims 13 and 14 under 35 U.S.C. 102(b) as being anticipated by O’Laughlin et al, US 4,868,169. The Examiner states that Applicants traversed this rejection with respect to Claim 1, but not with respect to Claim 13. Accordingly the Examiner maintains the rejection.

Applicants have cancelled Claim 13 and Claim 14 now depends from Claim 2 through the present amendment. Applicants therefore believe this rejection has been rendered moot.

Therefore, the applicants request that the rejection under 35 U.S.C. §102(b) be withdrawn and the claims allowed to issue.

The Examiner has rejected Claims 13 and 14 under 35 U.S.C. 102(e) as being anticipated by Schmid et al, US 6,610,752. The Examiner states that Applicants traversed this rejection with respect to Claim 1, but not with respect to Claim 13. Accordingly the Examiner maintains the rejection.

Applicants have cancelled Claim 13 and Claim 14 now depends from Claim 2 through the present amendment. Applicants therefore believe this rejection has been rendered moot. Therefore, the applicants request that the rejection under 35 U.S.C. §102(b) be withdrawn and the claims allowed to issue.

The Examiner has also rejected Claim 13 under 35 U.S.C. 102(b) as being anticipated by Minami et al, WO 01/39733 (US 6,890,543 for English translation). The Examiner states that Applicants traversed this rejection with respect to Claim 1, but not with respect to Claim 13. The Examiner states that upon further consideration, the reference remains anticipatory with respect to Claim 13.

Applicants have cancelled Claim 13 and Claim 14 now depends from Claim 2 through the present amendment. Applicants therefore believe this rejection has been rendered moot. Therefore, the applicants request that the rejection under 35 U.S.C. §102(b) be withdrawn and the claims allowed to issue.

### ***Claim Rejections - 35 USC § 103***

The Examiner has also rejected Claims 1-8, 11, 13, and 17-20 under 35 U.S.C. 103(a) as being unpatentable over Yamada et al, US 4,719,034.

The Examiner states that Yamada et al teach a solid silicone defoaming agent comprising 30% of a silicone composition consisting of finely divided silica and a dimethylsiloxanemethyltetradecylsiloxane-methyl(2-phenylethyl)siloxane copolymer, 30% glyceryl monostearate, and 20% propylene glycol monostearate (col. 6, example 3). The Examiner notes that suitable glycerol esters of the invention include propylene glycol diesters (Col. 2, lines 52-63). Accordingly, the Examiner argues that it would have been obvious to one

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of ordinary skill in the art to substitute either a propylene glycol diester or glycerol triester for one of the monoesters in example 3 and so render obvious the claims at hand, as diester and triester are taught as suitable in these compositions.

The Examiner also states that Applicants have traversed this rejection on the grounds that the degree of esterification claimed is not taught by the reference. The examiner disagrees and maintains that either a glycerol triester or a propylene glycol diester will satisfy this claim limitation.

Applicants believe that through the present amendment, the invention as now recited in the Claims is nonobvious over Yamada et al. Claim 1 now recites a granulated foam control composition comprising: (i) a foam control agent comprising a polydiorganosiloxane fluid; a hydrophobic filler dispersed in the polydiorganosiloxane fluid; and optionally an organosilicon resin; and (ii) an additive composition having a melting point of at least 35°C comprising 5-50 parts by weight of a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified; and 50-95 parts by weight of a component (B) which is miscible with component (A) and is more polar than component (A), at least one of (A) and (B) being miscible with the polysiloxane fluid; wherein the foam control agent (i) and the additive composition (ii) are supported on a particulate carrier with the proviso that a mixture of (i) and (ii) is deposited onto the particulate carrier in non-aqueous liquid form.

Yamada et al. fails to disclose or suggest the foam control composition as now recited in Claims 1-12, 14, 16-18, 20, and 24-26. Nowhere in Yamada et al. is the granulated foam control composition as currently recited Claim 1 and claims depending therefrom disclosed or taught. Yamada et al. supplies no apparent reasoning as to why a person of ordinary skill in the art would modify Yamada et al. to arrive at the Applicants invention as currently claimed in Claims 1, et. seq.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to arrive at the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure (MPEP §2143).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03. The Examiner has not shown that all the claim limitations in Claim 1 and Claims depending therefrom, and Claims 24-26 are taught or suggested in Yamada et al nor is there any apparent reason for one skilled in the art to modify Yamada et al. to arrive at Applicants' invention as presently claimed.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

The Examiner has rejected Claims 1, 2, 4-14, and 17-20 under 35 U.S.C. 103(a) as being unpatentable over Schmid et al, US 6,610,752. The Examiner states that suitable organopolysiloxanes of the invention may have as their substituents, methyl, ethyl, propyl, butyl, and phenyl (col. 2, lines 34-43). The Examiner further argues that besides silicones, other defoamers for use in the invention include the mono, di, or triesters of glycerol (col. 4, lines 64-67). Note that these granules are added to detergents which may contain well known nonionic surfactants such as ethoxylated alcohols and ethoxylated alkyl phenols (col. 9, lines 40-67). The Examiner also states that Schmid et al do not specifically teach a combination of silicone defoamers and mixtures of glycerol esters, however, as these esters are specifically taught as well known defoamers, it would have been obvious to one of ordinary skill in the art to formulate a defoaming granule incorporating these esters with a reasonable expectation of enhancing its defoaming efficacy.

The Examiner states that Applicants have traversed this rejection on the grounds that Schmid et al fail to disclose or suggest the foam control composition as recited in Claim 1. The Examiner disagrees and argues that organopolysiloxanes having as their substituents ethyl, propyl, butyl, and phenyl, will satisfy the siloxane fluid claimed, the silanized silica satisfies the filler claimed, a glycerol triester, taught by the reference, will satisfy component A, and the bis-stearyl ethylenediamide serves as component B. Accordingly the Examiner maintains the rejection.

Applicants believe that through the present amendment, the invention as now recited in the Claims is nonobvious over Schmid et al. Claim 1 now recites a granulated foam control composition comprising: (i) a foam control agent comprising a polydiorganosiloxane fluid; a hydrophobic filler dispersed in the polydiorganosiloxane fluid; and optionally an organosilicon resin; and (ii) an additive composition having a melting point of at least 35°C comprising 5-50 parts by weight of a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified; and 50-95 parts by weight of a component (B) which is miscible with component (A) and is more polar than component (A), at least one of (A) and (B) being miscible with the polysiloxane fluid; wherein the foam control agent (i) and the additive composition (ii) are supported on a particulate carrier with the proviso that a mixture of (i) and (ii) is deposited onto the particulate carrier in non-aqueous liquid form.

Schmid et al fails to disclose or suggest the foam control composition as now recited in Claims 1-12, 14, 16-18, 20, and 24-26. Nowhere in Schmid et al is the granulated foam control composition as currently recited Claim 1 and claims depending therefrom disclosed or taught. Schmid et al supplies no apparent reasoning as to why a person of ordinary skill in the art would modify Schmid et al to arrive at the Applicants invention as currently claimed in Claims 1, et. seq.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must

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be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to arrive at the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure (MPEP §2143).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03. The Examiner has not shown that all the claim limitations in Claim 1 and Claims depending therefrom, and Claims 24-26 are taught or suggested in Schmid et al nor is there any apparent reason for one skilled in the art to modify Schmid et al to arrive at Applicants' invention as presently claimed.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

Claims 1, 2, 5-7, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koczo et al, US 5,846,454. The Examiner states that Koczo et al teach an antifoam concentrate comprising a polydiorganosiloxane, fine solid particles, and a nonionic emulsifier (see abstract). Suitable organic groups of the organosiloxane include ethyl, propyl, butyl, or phenyl (col. 2, lines 55-57), and the emulsifier component may contain two emulsifiers, one with a low HLB (sorbitan tristearate) and a high HLB (glyceryl monolaurate and ethoxylated alcohols) (col. 4, lines 28-35). The Examiner argues that it would have been obvious to one of ordinary skill in the art to prepare a composition comprising an organosiloxane including an ethyl, propyl, butyl, or phenyl group, fine solid particles, and two emulsifiers including sorbitan tristearate and glyceryl monolaurate, and so render obvious the claims at hand.

Applicants believe that through the present amendment, the invention as now recited in the Claims is nonobvious over Koczo et al. Claim 1 now recites a granulated foam control composition comprising: (i) a foam control agent comprising a polydiorganosiloxane fluid; a hydrophobic filler dispersed in the polydiorganosiloxane fluid; and optionally an organosilicon resin; and (ii) an additive composition having a melting point of at least 35°C comprising 5-50

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parts by weight of a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified; and 50-95 parts by weight of a component (B) which is miscible with component (A) and is more polar than component (A), at least one of (A) and (B) being miscible with the polysiloxane fluid; wherein the foam control agent (i) and the additive composition (ii) are supported on a particulate carrier with the proviso that a mixture of (i) and (ii) is deposited onto the particulate carrier in non-aqueous liquid form.

Koczo et al fails to disclose or suggest the foam control composition as now recited in Claims 1-12, 14, 16-18, 20, and 24-26. Nowhere in Koczo et al is the granulated foam control composition as currently recited Claim 1 and claims depending therefrom disclosed or taught. Koczo et al supplies no apparent reasoning as to why a person of ordinary skill in the art would modify Koczo et al to arrive at the Applicants invention as currently claimed in Claims 1, et. seq.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to arrive at the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure (MPEP §2143).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03. The Examiner has not shown that all the claim limitations in Claim 1 and Claims depending therefrom, and Claims 24-26 are taught or suggested in Koczo et al nor is there any apparent reason for one skilled in the art to modify Koczo et al to arrive at Applicants' invention as presently claimed.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

Claims 1-11, and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickinson, GB 1,523,957 in view of Schmid et al, US 6,610,752.

The Examiner states that Dickinson teaches a foam control granule comprising a stearyl alcohol ethoxylate, silica, and a polydiorganosiloxane with mixed organic groups, wherein the organic groups are methyl, ethyl, and phenyl propyl, and the foam control substance is adhered to granular sodium tripolyphosphate (page 3, example 1). Suitable organic groups of the invention include octyl, tetradecyl, and phenyl (page 1, lines 41-44) and suitable additives of the invention include silicone resin copolymers, microcrystalline wax, and the esters of fatty acids with polyhydric alcohols, such as glycerol monostearate (page 2, lines 15-26). The Examiner admits that Dickinson does not specifically teach a combination of the polydiorganosiloxane fluid and polyol esterified carboxylate presently claimed.

The Examiner states that Schmid et al teach defoamers in their invention including the mono, di, or triesters of glycerol (col. 4, lines 64-67). The Examiner then suggests that based on these references, glycerol esters are common additives for use in defoaming granules. The Examiner thus concludes that it would have been obvious to one of ordinary skill in the art to incorporate a glycerol triester into the defoaming granules of Dickinson, as Dickinson teaches glycerol esters as suitable additives, and based on the teachings of Schmid et al, that glycerol triesters are suitable additives in defoaming granules.

Applicants believe that through the present amendment, the invention as now recited in the Claims is nonobvious over Dickinson and Schmid et al has been distinguished from the present invention as discussed above. Claim 1 now recites a granulated foam control composition comprising: (i) a foam control agent comprising a polydiorganosiloxane fluid; a hydrophobic filler dispersed in the polydiorganosiloxane fluid; and optionally an organosilicon resin; and (ii) an additive composition having a melting point of at least 35°C comprising 5-50 parts by weight of a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl

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groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified; and 50-95 parts by weight of a component (B) which is miscible with component (A) and is more polar than component (A), at least one of (A) and (B) being miscible with the polysiloxane fluid; wherein the foam control agent (i) and the additive composition (ii) are supported on a particulate carrier with the proviso that a mixture of (i) and (ii) is deposited onto the particulate carrier in non-aqueous liquid form.

Dickinson fails to disclose or suggest the foam control composition as now recited in Claims 1-12, 14, 16-18, 20, and 24-26. Nowhere in Dickinson is the granulated foam control composition as currently recited Claim 1 and claims depending therefrom disclosed or taught. Dickinson supplies no apparent reasoning as to why a person of ordinary skill in the art would modify the disclosure of Dickinson by incorporating into it the teachings of Schmid et al to arrive at the Applicants invention as currently claimed in Claims 1, et. seq.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to arrive at the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure (MPEP §2143).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03. The Examiner has not shown that all the claim limitations in Claim 1 and Claims depending therefrom, and Claims 24-26 are taught or suggested in Dickinson nor is there any apparent reason for one skilled in the art to combine the disclosures of Dickinson and Schmid et al to arrive at Applicants' invention as presently claimed.

Furthermore, the Examiner is directed to Comparative Example C2 and Examples 1-5 and to the results in Table 1 on page 19 of Applicants' specification. It is clear from the data

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presented therein, the using glycol monostearate (GMS) alone was not as effective in defoaming performance as compared to Examples 1-5 where GMS was used in combination with a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified (i.e. glyceryl tristearate (GTS)).

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

Claims 1-11, and 13-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over L'Hostis et al, EP 1,075,863 in view of Schmid et al, US 6,610,752. The Examiner states that L'Hostis et al teach a silicone foam control granule comprising an organic fluid, a siloxane resin containing MQ groups, a silica filler having a particle size of from 0.5 to 30 microns, a particulate carrier, and a mixture of polydiorganosiloxanes, wherein at least one of the organic groups is a phenylpropyl group (page 10, claims 1-4, 10, 15, and 24). Suitable nonionic surfactants of the invention include ethoxylated alcohols and esters of glycerol (page 6, lines 30-35). L'Hostis et al do not specifically teach a combination of the polydiorganosiloxane fluid and polyol esterified carboxylate presently claimed. The Examiner states that Schmid et al teach defoamers in their invention including the mono, di, or triesters of glycerol (col. 4, lines 64-67). It appears then, that based on these references, glycerol esters are common additives for use in defoaming granules. The Examiner then concludes that it would have been obvious to one of ordinary skill in the art to incorporate a glycerol triester into the defoaming granules of L'Hostis et al, as the reference teaches glycerol esters as suitable additives, and based on the teachings of Schmid et al, that glycerol triesters are suitable additives in defoaming granules.

Applicants believe that through the present amendment, the invention as now recited in the Claims is nonobvious over L'Hostis et al and Schmid et al has been distinguished from the present invention as discussed above. Claim 1 now recites a granulated foam control composition comprising: (i) a foam control agent comprising a polydiorganosiloxane fluid;

a hydrophobic filler dispersed in the polydiorganosiloxane fluid; and optionally an organosilicon resin; and (ii) an additive composition having a melting point of at least 35°C comprising 5-50 parts by weight of a non-polar polyol ester (A) which is a polyol esterified by carboxylate groups each having 7 to 36 carbon atoms, wherein for a diol or a triol at least 90% of the hydroxyl groups of the polyol are esterified, and for higher polyols at least 70% of the hydroxyl groups of the polyol are esterified; and 50-95 parts by weight of a component (B) which is miscible with component (A) and is more polar than component (A), at least one of (A) and (B) being miscible with the polysiloxane fluid; wherein the foam control agent (i) and the additive composition (ii) are supported on a particulate carrier with the proviso that a mixture of (i) and (ii) is deposited onto the particulate carrier in non-aqueous liquid form.

L'Hostis et al fails to disclose or suggest the foam control composition as now recited in Claims 1-12, 14, 16-18, 20, and 24-26. Nowhere in L'Hostis et al is the granulated foam control composition as currently recited Claim 1 and claims depending therefrom disclosed or taught. L'Hostis et al supplies no apparent reasoning as to why a person of ordinary skill in the art would modify the disclosure of L'Hostis et al by incorporating into it the teachings of Schmid et al to arrive at the Applicants invention as currently claimed in Claims 1, et. seq.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to arrive at the claimed invention and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure (MPEP §2143).

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art MPEP §2143.03. All words in a claim must be considered in judging the patentability of that claim against the prior art MPEP §2143.03. If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious MPEP §2143.03. The Examiner has not shown that all the claim limitations in Claim 1 and Claims depending therefrom, and Claims 24-26 are taught or

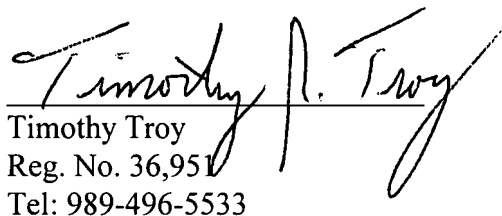
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suggested in L'Hostis et al nor is there any apparent reason for one skilled in the art to combine the disclosures of L'Hostis et al and Schmid et al to arrive at Applicants' invention as presently claimed.

Therefore, the applicants request that the rejection under 35 U.S.C. §103 be withdrawn and the claims allowed to issue.

Applicants also submit herewith a petition for a two (2) month extension of time. You are authorized to charge deposit account 04-1520 for any fees necessary to maintain the pendency of this application. You are authorized to make any additional copies of this sheet needed to accomplish the purposes provided for herein and to charge any fee for such copies to deposit account 04-1520.

Respectfully Submitted,  
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